

### Abstract

The invention relates to a novel enzyme involved in the biosynthesis of mycolic acids and to the use thereof for the screening of antibiotics, especially antimycobacterials. The invention more particularly relates to the Pks13 protein which catalyzes Claisen condensation or malonic condensation in mycolates between an acyl-CoA molecule or an acyl-AMP molecule and an acylmalonyl-CoA molecule to form an intermediate  $\beta$ -cEto acyl ou  $\beta$ -cEto ester.